This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended): A system for creating data relating to a modular wiring harness design, in which module data is created and stored for a plurality of harness modules representing wire and component element requirements for a plurality of options, the modules being capable of assembly in selected combinations to create a complete harness, wherein:

each element is assigned to be part of at least one module;

data representing at least some of the elements is associated with a plurality of modules; and

an element which has data associated with a plurality of modules that may be used together is assigned to be part of only one of that plurality of modules but has data associated with each of that plurality of modules.

2 (original): A system as claimed in claim 1, wherein data is stored representing a virtual parent harness including all modules available for designing a physical harness, and data is stored identifying that at least one of the modules is a core module, wherein a core module is an essential requirement for a physical harness.

3 (original): A system as claimed in claim 2, wherein only one core module may be included in a physical harness.

4 (original): A system as claimed in claim 1, wherein a wire in a complete harness is assigned exclusively to a module by a manual selection process.

5 (original): A system as claimed in claim 1, wherein a wire in a complete harness is assigned exclusively to one module by an automatic process.

6 (original): A system as claimed in claim 5, wherein components are assigned to modules by an automatic process.

7 (currently amended): A system as claimed in claim 1, wherein data is stored which indicates relationships between modules.

8 (original): A system as claimed in claim 7, wherein data is stored which indicates whether a specified two modules are incompatible.

9 (original): A system as claimed in claim 7, wherein data is stored which indicates that when a specified module is selected for a harness, at least one other predetermined module must also be selected for use in that harness.

10 (original): A system as claimed in claim 7, wherein at least one of the modules is a core module and a complete harness must include one and only one core module.

11 (original): A system as claimed in claim 10, wherein data is stored which indicates that when a specified module which is not a core module is selected for a harness, a core module must also be selected for use in that harness.

12 (original): A system as claimed in claim 7, wherein a routine is provided for automatically checking the relationships between modules and for alerting a user in respect of invalid associations.

13 (original): A system as claimed in claim 1, wherein data is provided which indicates wire and component element usage requirements for a harness comprising a plurality of modules, such usage requirements being determined taking into account the assignment of elements to modules so that an element which features in more than one of the modules is noted as being required only once.

14 (original): A system as claimed in claim 1, wherein data relating to a harness design is analyzed, a plurality of modules are identified automatically, and data is stored identifying the modules.

15 (original): A system as claimed in claim 14, wherein at least one module is identified manually.

16 (currently amended): A system as claimed in claim 14, wherein wire and component elements having data associated with a plurality of modules that may be used together are assigned automatically to one module only.

17 (currently amended): A system for creating data relating to a modular wiring harness design, in which the wiring harness design is analyzed and module data is created automatically and stored for a plurality of harness modules representing wire and component element requirements for those modules, the modules being capable of assembly in selected combinations to create a complete harness, wherein:

elements are assigned to modules;

data representing at least some of the elements is associated with a plurality of modules;

an element which has data associated with a plurality of modules that may be used together is assigned to be part of only one of that plurality of modules but has data associated with each of that plurality of modules;

permissible relationships between modules are stored;

modules are selected for use in a harness, and a validation check is carried out automatically with reference to the stored permissible relationships between modules; and

wire and component element requirements for the harness using the selected modules are calculated automatically having regard to the assignment of elements to modules, so that an element that is required for two modules that are to be used together will be noted as being required physically only once.

18 (original): A system as claimed in claim 17, wherein data is created for the purpose of use in at least one of the following:

2D design drawings; costing reports; sales quotes; purchasing reports; formboard drawing production; wire cutting requirements; manufacturing resources planning; engineering resources planning; testing routines; and automatic assembly routines.

19 (currently amended): A system for creating data relating to a modular wiring harness design, in which module data is created and stored for a plurality of harness modules constituting a virtual parent harness, the modules representing wire and component element requirements for a plurality of options and being capable of assembly in selected combinations to create physical harnesses corresponding to selected combinations of options, wherein:

each element is assigned to at least one module of the parent harness;

data representing at least some of the elements is associated with a plurality of modules of the parent harness; and

an element which has data associated with a plurality of modules of the parent harness that may be used together in a physical harness is assigned to be part of only one of that plurality of modules but has data associated with each of that plurality of modules;

and wherein:

at least one of the modules is a core module which is necessarily present in a physical harness corresponding to the modular wiring harness design, said physical harness including no more than one core module.

20 (original): A system as claimed in claim 19, wherein data is stored indicating whether two modules are incompatible with each other for use in a physical harness, and whether two modules must be used together if one of them is selected for use in a physical harness.

21 (original): A system as claimed in claim 19, wherein the parent harness includes a plurality of core modules, and core modules are incompatible for use together in a physical harness.

22 (original): A system as claimed in claim 19, wherein the parent harness is analyzed and if a wire or component is associated with a plurality of core modules it is assigned automatically to all of those core modules.

23 (original): A system as claimed in claim 19, wherein the parent harness is analyzed and if a wire or component is associated with at least one core module and with at least one other module it is assigned automatically to the or each core module only.

24 (original): A system as claimed in claim 19, wherein the parent harness is analyzed and if a wire or component is associated with a plurality of modules which are incompatible for use together in a physical harness it is assigned automatically to all of those modules.

25 (original): A system as claimed in claim 19, wherein the parent harness is analyzed and if a wire or component is associated with a plurality of modules which are compatible for use together in a physical harness, it is assigned automatically to one only of those modules.